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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,537	03/25/2004	Yasuo Oda	6304.870	4867

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EXAMINER	
CHOW, YUK	
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2629	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,537	ODA ET AL.	
	Examiner	Art Unit	
	Yuk C. Chow	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *08/16/2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 5-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/16/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-30 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of co-pending U.S. Patent application No. 10/949705. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reason below.

Claim 1 of U.S. Patent Application No. 10/949,705	**Claim 1 of U.S. Patent Application No. 10/808,537**
A position detecting system comprising a position indicator which has at least one coil and which indicates a position; and	A position detection system comprising a position pointer including at lease one coil, for pointing a position, and a position

position detecting apparatus for detecting the position indicated by the position indicator by transmitting/receiving signals to/from the position indicator by electromagnetic coupling,	detector for detecting the position pointed to by the position pointer by transmitting and receiving a signal to and from the position pointer by means of electromagnetic coupling,
the position detecting apparatus comprising: a first transmission coil for transmitting position detecting signals to the position indicator; a second transmission coil provided in the outer side of the first transmission coil;	the position detector comprising: a plurality of transmission coils for transmitting a position pointer exciting signal to the position pointer;
a plurality of sensor coils for receiving signals from the position indicator;	a plurality of sensor coils for receiving a position indicating the signal transmitted from the position pointer in response to the position pointer exciting signal;
a signal transmitter for driving the first and second transmission coils so that the first and second transmission coils transmit position detecting signals of opposite phases;	signal transmission means for selecting one of the plurality of transmission coils in accordance with the position of the position pointer indicated by the position indicating signal and for driving the selected transmission coil so as to transmit the position pointer exciting signal to

	detect the position to the position pointer;
a receiver for sequentially selecting the plurality of sensor coils and for receiving the signals from the position indicator;	reception means for selecting the plurality of sensor coils one by one and receiving the position indicating signal transmitted from the position pointer;
position detecting unit for detecting the position indicated by the position indicator based on the signals received by the receiver;	position detection means for detecting the position pointed to by the position pointer in accordance with the position indicating signal received by the reception means;
a signal transmitter for driving the first and second transmission coils so that the first and second transmission coils transmit position detecting signals of *opposite phases*.	wherein, depending on a relative spatial relationship between the selected transmission coil and the position of the position pointer detected by the position detection means, the signal transmission means drives the selected transmission coil such that the *phase* of the position pointer exciting signal supplied to the position pointer is maintained without being *inverted*.

Regarding the comparison above, claim 1 of current application is not patentably distinct from claim 1 of the US patent application (**10/949,70**) despite the different

terminology was used. For example, in current application, applicant recites "...*phase*... is maintained without being *inverted*" and in cited reference (**10/949,70),** which uses two transmission signals that are in opposite phases, so that detecting signal is maintained. It is obvious to one of ordinary skilled in the art at time of invention was made to realize that same functionally was described with different wordings.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 30 is rejected under 35 U.S.C. 102(b) as being anticipated by Fukuzaki (US Patent 5,635,684).

As to claim **30**, Fukuzaki discloses a position detector for detecting a position of a position pointer, the detector comprising:

a sensor area (see Fig. 1(1)) defined by a plurality of sensor coils for sensing a position indicating signal transmitted from the position pointer;

a reception unit (Fig. 1(103b)) for determining a position of the position pointer based on the sensed position indicating signal;

a plurality of transmission coils (Fig. 1(120)) for transmitting a pointer exciting signal to the position pointer, said transmission coils disposed to, at least partially, overlap with said sensor coils in said sensor area (Col. 4 lines 32-39); and

a transmission coil selector (Fig. 1(105a)) for selectively driving current in said transmission coils so that the pointer exciting signal transmitted to the position pointer maintains the same polarity regardless of the position of the position pointer with respect to the sensor area (see Col. 4 lines 23-31).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-3, 5-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ely et al. (US Patent 6,888,538) in view of Rodgers et al. (US Patent 6,396,005).

As to claim **1**, Ely discloses a position detection system (Fig. 1) comprising a position pointer (Fig. 1(5)) including at least one coil (Fig. 3(45)), for pointing to a position, and a position detector (Fig. 1) for detecting the position pointed to by the position pointer by transmitting and receiving a signal (Fig. 3(39-1,39-2) to and from the position pointer by means of electromagnetic coupling (Col. 6 lines 42-63), the position detector comprising:

a plurality of transmission coils (Fig. 7a (29)) for transmitting a position pointer exciting signal to the position pointer (Fig. 1(5));

a plurality of sensor coils (Fig. 3(31-37)) for receiving a position indicating signal transmitted from the position pointer in response to the position pointer exciting;

signal transmission means (Fig. 3(39-2, 39-3, 39-4, 39-5)) for selecting one of the plurality of transmission coils in accordance with the position of the position pointer indicated by the position indicating signal and for driving the selected transmission coil so as to transmit the position pointer exciting signal to position pointer (Col. 6 lines 4-63);

reception means (Fig. 3(39-1)) for selecting the plurality of sensor coils one by one and receiving the position indicating signal transmitted from the position pointer (Col. 6 lines 42-63); and position detection means for detecting the position pointed to by the position pointer in accordance with the position indicating signal received by the reception means (Col. 10 lines 6-31).

However, Ely does not mention wherein, depending on a relative spatial relationship between the selected transmission coil and the position of the position pointer detected by the position detection means, the signal transmission means drives the selected transmission coil such that the phase of the position pointer exciting signal supplied to the position pointer is maintained without being inverted.

Rodgers discloses a method for diminishing grid complexity in a tablet, wherein the position of the coils are overlapping (Fig. 4A), and phase of the exciting signal is maintained (Fig. 4B, also see Col. 5 lines 42-44).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time of the invention was made to use the method of Rodgers' into position detecting system of Ely's, because it is an advantage to maintain the grid accuracy (see Col. 5 lines 42-44).

As to claim **2**, Ely discloses a position detection system according to claim 1, wherein the plurality of transmission coils are disposed so as to be coaxial with each other (Fig. 8a).

As to claim **3**, Ely discloses a position detection system according to claim 1, wherein the signal transmission means defines a plurality of sub areas (Fig. 7b-7g) in a sensor area in which the plurality of transmission coils (Fig. 7b (31-1,31-2)) are disposed, selects a transmission coil capable of supplying a strongest position pointer exciting signal (Fig. 5, 6) to the position pointer depending on a particular sub area in which the position pointer is located, and drives the selected transmission coil thereby supplying the position pointer exciting signal the position pointer (Col. 9 line 3 Col. 10 line 5).

As to claim **5**, Ely discloses a position detection system according to claim 1, wherein, depending on whether the position pointer is located in the inside (Fig. 7c(33-13)) or the outside (Fig. 7c(33-8)) of the selected transmission coil, the signal transmission means inverts the phase of the position pointer exciting signal by which to drive the transmission coil such that the position pointer exciting signal supplied to the position pointer is maintained unchanged in terms of its phase (Col. 8 lines 1-57).

As to claim **6**, Ely discloses a position detection system according to claim 1, wherein the plurality of transmission coils include a first transmission coil (Fig. 7c(33-13)) and a second transmission coil (Fig. 7c(33-8)) disposed outside the first transmission coil, the first and second transmission coils being coaxial with each other (Fig. 7c).

As to claim **7**, Ely discloses a position detection system according to claim 6, wherein three sub areas (Fig. 7c(33-2,33-8,33-13)) are defined in a sensor area in which the position of the position pointer is detectable, the three sub areas including a first area in which when the signal to detect the position is transmitted in a first phase (Fig. 4a(E31) at peak), the first transmission coil (Fig. 7c(33-13)) is capable of transmitting the position pointer exciting signal with a greater signal level than the second transmission coil, a second area in which when the position pointer exciting signal is transmitted in the first phase, the second transmission coil is capable of transmitting the position pointer exciting signal with a greater signal level than the first transmission coil, and a third area (Fig. 7c(33-2)) in which when the position pointer exciting signal transmitted in a second phase (Fig. 4a(E31) at trough) opposite to the first phase, the first transmission coil is capable of transmitting the position pointer exciting signal with a greater signal level than the second transmission coil,

and wherein the signal transmission means transmits the position pointer exciting signal the first phase from the first transmission coil when the position pointer is located in the first area (Fig. 7c(33-13)), the signal transmission means transmits the position pointer exciting signal in the first phase from the second transmission coil when the position pointer is located in the second area (Fig. 7c(33-8)), and the signal transmission means transmits the position pointer exciting signal in the second phase from the first transmission coil when the position pointer is located in the third area (Col. 7 line 14-Col. 8 line 42).

As to claim **8**, Ely discloses a position detection system according to claim 7, wherein the reception means sequentially selects a predetermined number of sensor coils located in the first area (Fig. 7c(33-13)) and an area adjacent to the first area and receives the position indicating signal transmitted from the position pointer when the position pointer is located in the first area, the reception means sequentially selects a predetermined number of sensor coils located in the second area (Fig. 7c(33-8)) and an area adjacent to the second area and receives the position indicating signal transmitted from the position pointer when the position pointer is located in the second area; and the reception means sequentially selects a predetermined number of sensor coils located in the third area (Fig. 7c(33-2)) and an area adjacent to the third area and receives the position indicating signal transmitted from the position pointer when the position pointer is located in the third area (Col. 10 line 32-Col. 12 line 48).

Regarding claims **9-16**, limitations within these claims are identical to claims **1-8** respectively, except the subject matter is a **position detector** instead of **position detection system**. Therefore, same rejections apply to these claims.

Regarding claims **17-20**, limitations within these claims are identical to claims **1-4** respectively, except the subject matter is a **power conserving position detector** instead of **position detection system**. Therefore, same rejections apply to these claims.

As to claim **21**, Ely discloses a power conserving position detector according to claim 17, wherein said position detection means is configured to provide user input data to a portable data processing device (Fig. 3(59) digital processing device).

As to claim **22**, Ely discloses a power conserving position detector according to claim 17, wherein said position detection means is configured to provide user input data to a personal digital assistant (Fig. 1).

As to claim **23**, Ely discloses a power conserving position detector according to claim 17, wherein said position detection means is configured to provide user input data to a mobile telephone (Fig. 16).

As to claim **24**, Ely discloses a power conserving position detector according to claim 17, wherein said position detection means is configured to provide user input data to a personal computer (See Abstract).

As to claim **25**, Ely discloses a method for transmitting an electromagnetic wave (Fig. 4a(31)) from a position detector (Fig. 1) to a position pointer carrying a resonant circuit (Fig. 3(41)), comprising:

(a) providing, in the position detector, a plurality of sensor coils (Fig. 3(31-37)) defining a sensor area and at least one transmission coil (Fig. 3(45)) for transmitting a signal to detect the position of the position pointer, the transmission coil being arranged in the sensor area in an overlapping manner (see Fig. 8d) with the sensor coils, the transmission coil comprising a resonant circuit tuned to resonate at a selected resonant frequency (Fig. 3(53));

(b) energizing the transmission coil with a pulsed carrier signal (Fig. 3(39-1)) at the selected transmission coil resonant frequency for inducing current in the transmission coil in a first direction when the position point is detected in a first region of

the sensor area and inducing current in the transmission coil in a second direction when the position pointer is detected in a second region of the sensor area (see Fig. 8d); and

(c) receiving the pulsed carrier signal in the position pointer resonant circuit and, in response, radiating a pulsed position pointer signal (Fig. 3(39-2)).

As to claim **26**, Ely discloses a method of claim 25, further comprising: (d) receiving the pulsed position pointer signal in the position detector sensor coils (Col. 6 lines 24-63).

As to claim **27**, Ely discloses a method of claim 25, wherein the step of providing the at least one transmission coil comprising a resonant circuit (Fig. 3(41)) comprises providing an inductive transmission coil (Fig. 3(45)) connected in series with a capacitor (Fig. 3(43)).

As to claim **28**, Ely discloses a method of claim 25, wherein the step of providing the at least one transmission coil comprises providing first and second transmission coils, the first transmission coil being wound proximate to the periphery of the position detector sensor coils along a first path (Fig. 7c(33-13)); and wherein the second transmission coil is wound proximate to the periphery of the position detector sensor coils along a second path (Fig. 7c(33-8)) not coextensive with said first path.

As to claim **29**, Ely discloses a method of claim 28, further comprising:

(d) energizing solely the first transmission coil (Fig. 3(39-1)) with said pulsed carrier signal (Fig. 4a(E31)) at said selected resonant frequency;

and (e) energizing solely said second transmission coil with said pulsed carrier signal at said selected resonant frequency (Col. 6 line 64-Col. 7 line 13).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuk C. Chow whose telephone number is 571 270-1544. The examiner can normally be reached on 8-6 M-TH E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571 270-1550. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YC

10/22/2007

AMARE MENGISTU
SUPERVISORY PATENT EXAMINER